Eelgrass:

Coalition Perspective:

- Prolonged reduction in eelgrass cover began in 2006.
- The Coalition cites the effects of the Mother's Day storm in 2006 (when up to 15 inches of rain fell over the course of a few days) for eelgrass loss within Great Bay proper during this year.
- Great Bay has not been able to recover from the extreme storm event in 2006 but was able to recover from a wasting disease outbreak in 1989 when the eelgrass acreage in Great Bay dropped to about 300 acres.
- Eelgrass losses are caused by factors other than nitrogen such as turbidity, colored dissolved organic matter (CDOM), and sediment loads.
- The Coalition focuses on eelgrass coverage in Great Bay proper

EPA Perspective:



Coalition Perspective:

 The Coalition cites to a PREP, 2016 report titled "Eelgrass/Macroalgae Discussion Primer for TAC Activities 2016-2017" stating, "These surveys have documented mats of macroalgae even below dense eelgrass beds. In this case is appears that eelgrass and macroalgae apparently coexist in such a way that it is possible for complete coverage by both plant types."

EPA Perspective:





<u>Coalition Assessment of TN and Chlorophyll-a Response in the Upper Piscataqua River Following Voluntary TN Reductions at the Dover and Rochester POTWs</u>

Coalition Perspective:

- In 2015 the Coalition performed sampling in the Upper Piscataqua River and also deployed data sondes at several locations. This sampling was performed following upgrades to both the Rochester and Dover POTWs.
- On page 10 of their report the Coalition states that while total nitrogen decreased significantly, no corresponding reduction in chlorophyll-a was detected in 2015.
- They also state that DO concentrations in these waters were also demonstrated to be insensitive to the change in ambient TN and DIN levels.

EPA Perspective:



Mischaracterization of materials from the Piscataqua Region Estuaries Partnership (PREP), New Hampshire Department of Environmental Services (NHDES), and external advisors:

Coalition Assertion and Citation:

- Decreases in dissolved inorganic nitrogen to levels from the 1970s and early 1990s show improvements to the system.
- PREP's 2018 State of Our Estuaries (SOOE). "Since then, DIN levels have decreased such that
 the concentrations in 2014-2015 are equivalent to those concentrations seen in the 1970s (PREP
 2018 SOOE at 18-19)."

Full/Omitted Citations EPA Perspective:



Coalition Assertion and Citation:

- The Coalition cites to NHDES's 2016 final Section 303(d) list and the Great Bay Estuary 303(d)
 List Technical Support Document (TSD) to support their view that nitrogen is not an issue for
 Great Bay.
- The Coalition provides the following quote from the TSD, "It is less clear, at this time, whether the response datasets demonstrate sufficient power to determine that the eutrophication effects on designated used can be attributed to total nitrogen alone. Given that uncertainty, impairment is not warranted under New Hampshire's narrative standard. As such, this assessment zone has been assessed at Insufficient Information Potentially Not Supporting (3-PNS)."

Full/Omitted Citations EPA Perspective:





Coalition Assertion and Citation:

- The Coalition cites to NHDES's 2016 final Section 303(d) list and the Great Bay Estuary 303(d)
 List Technical Support Document (TSD) to support their view that nitrogen is not an issue for
 Upper Piscataqua River.
- The Coalition provides the following quote from the TSD, "However, there are insufficient response datasets to determine the eutrophication by total nitrogen alone is not known to be strong enough to warrant impairment under New Hampshire's narrative standard. Additionally, the nutrient load to this assessment zone is rapidly decreasing due to the ongoing work by the municipalities (Rochester reductions in 2015 and Dover began reductions in 2015). As such, this assessment zone has been assessed as Insufficient Information Potentially Not Supporting (3-PNS) for total nitrogen."

Full/Omitted Citations EPA Perspective:



Coalition Assertion and Citation:

- The Coalition believes that the Great Bay Estuary may have traits that make it tolerant of high nutrient levels.
- The Coalition cites the SOOE report stating,"[T]he Great bay estuary may have traits that make it more tolerant of high nutrient levels (such as high flushing rates) [...] (SOOE at 8)."

Full/Omitted Citations EPA Perspective:



Coalition Assertion and Citation:

• The Coalition cites to external advisors for the SOOE report who reviewed stressors in Great Bay to support their assertion that the contribution of total nitrogen to conditions in Great Bay is not known.

Full/Omitted Citations EPA Perspective:

